Cotton/Soybean Insect Newsletter

Volume 6, Issue #2 **Edisto Research & Education Center in Blackville, SC** **12 May 2011**

Cotton/Soybean Insect Scouting Schools

We have planned one insect scouting school for cotton and soybeans. It will be held at the Edisto Research and Education Center (EREC) on 2 June (3 weeks from today). The training and lunch will be free, and there will be handouts and some giveaways available. A tentative agenda is shown below. **In order to plan for lunch, please email me (greene4@clemson.edu) with how many folks you will be bringing to the training.** We think that there might be sufficient interest to offer at least one additional school, so we will be announcing that shortly. EREC is about 2-3 miles West of Blackville, SC, on Hwy 78.

Cotton/Soybean Insect Scouting School (2 June 2011) – Tentative Agenda
Edisto Research & Education Center near Blackville, SC
AM
9:30 Registration
10:00 Welcome and Importance of Scouting – Joe Varn
10:15 Important Cotton Insect Pests – Jeremy Greene
11:00 Important Soybean Insect Pests – Jeremy Greene
11:30 Beneficial Arthropods – Jeremy Greene
12:00 Lunch
1:00 Adjourn

Pest Patrol Hotline

There is a toll-free hotline for quick updates on insect problems. I will update the short message weekly for at least as long as the newsletter runs. Simply call the free number **(877) 285-8525** and select the messages you would like to hear. Select #3 for the Southeast and select #1 to hear my message. The hotline is sponsored by Syngenta Crop Science.

News from Above the Lakes

No news to report this week. Please email your observations/comments by Wednesday each week to be placed here. You can remain anonymous by simply requesting it or receive credit for your information.

News from Below the Lakes

Jonathan Croft, county agent covering Dorchester and Berkeley Counties reported that he found some caterpillars in corn recently. We will get those identified quickly and determine if action is necessary.

Pest Alert 1!!!

See the section below under soybean called ***'Pest Alert: Kudzu Bug/Bean Plataspid'*** for updated information about an invasive species spreading in our state and the Southeast. If you have not seen this new insect near a kudzu patch or in a soybean field in your area, chances are you will soon.

Pest Alert 2!!!

See the section below called ***'Pest Alert: Brown Marmorated Stink Bug'*** for information about the brown marmorated stink bug (BMSB) that is now in SC. The BMSB has been in the USA for at least a dozen or more years but has finally made it from the Northeast to the Southeast and will likely be a cotton and soybean pest.

Cotton Situation

As of 9 May 2011, the USDA NASS South Carolina Statistical Office had our progress at about 32% of the crop being planted, a little behind 36% for last year but ahead of the 5-yr average of 27%. Conditions were again described as warmer than average, with a mix of too much and too little rainfall. The overall moisture levels in the state were described as 6% very short, 19% short, 71% adequate, and 4% surplus. These are observed/perceived state-wide averages.

Thrips in Cotton

How do you manage thrips without Temik? Can we? What about the control/suppression of nematodes that we got with Temik while controlling thrips? We have to make it without (aldicarb) Temik (for now) and we can. Here is some advice that most folks have probably considered by now. Certainly follow peanuts in fields where you know you have nematode problems. Put any Temik that you have under cotton that you know needs help with nematodes. Use seed treatments (Aeris, Avicta Complete) in most other areas, and plan to spray thrips one time, maybe two. With the warm temperatures we have been and are having, cotton will be growing rapidly and hopefully "out running" much of the damage caused by thrips. Pay attention to immature thrips on cotton seedlings because they are a clear indicator that your at-plant material has "played out". Immature numbers and visible feeding symptoms will be the signs that you need to intervene with an insecticide. As you know, thrips feed on leaves and terminals of seedling plants, thereby stunting growth and delaying maturity. Damaged leaves appear crinkled on top, and lower surfaces will often have a silvery sheen. Leaf margins become cupped and terminal buds may be destroyed. Tobacco thrips, *Frankliniella fusca*, is the predominant species encountered on cotton in South Carolina.

Here are our recommendations for thrips control:

THRIPS (FOLIAR SPRAYS)

Product	Product/acre	Lb ai/acre	Acre/gal	REI	PHI	Comments
dicrotophos **(R)**		0.1-0.2		6 d	30 d	3.2 oz limit
Bidrin 8 E	1.6-3.2 oz		40-80			pre-square
acephate		0.15-0.18		24 hr	21 d	
Orthene 97	2.5-3.0 oz		-			
Acephate 97UP	2.5-3.0 oz		-			
Orthene 90 S	2.67-3.2 oz		-			
Acephate 90 S	2.67-3.2 oz		-			
dimethoate		0.125-0.25		48 hr	14 d	
Dimethoate 4 EC	4-8 oz		16-32			
methamidophos **(R)**		0.1-0.2		48 hr	50 d	Existing
Monitor 4 EC	3.2-6.4 oz		20-40			stock only

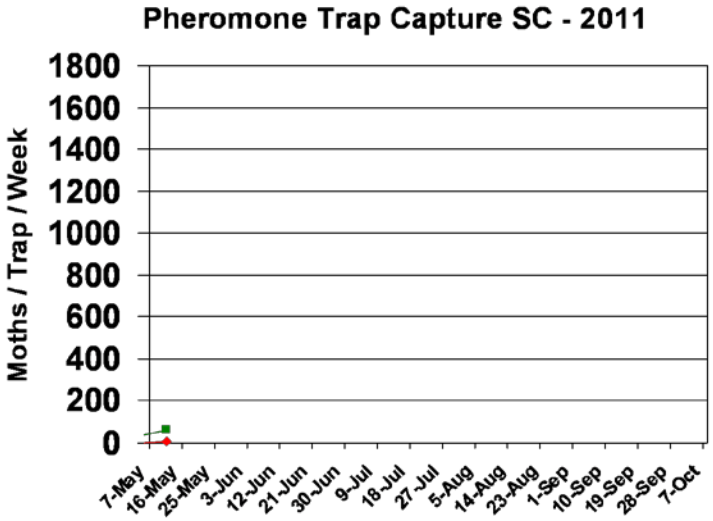
Generally a soil insecticide used at planting will protect seedling plants from the severe stunting that is characteristic of thrips injury. Occasionally, however, conditions will be unfavorable for proper uptake of systemic insecticides (too cool, dry soil, excessive moisture, etc.) and plants can be severely damaged. **Foliar treatments will be most effective when applied to cotton seedlings prior to unfolding of the second true leaf**. At this growth stage a foliar insecticide treatment may be needed when two or more thrips are found per plant. Shake each plant (randomly select 25 or more) into a coffee cup or a similar utensil to facilitate counting. When most plants have severely damaged growing points and immature thrips are present, one or more foliar treatments may be needed to allow the plants to resume normal growth and development. Examine plants 5-7 days after the initial treatment, and treat again if immatures are still present on most plants. When the newly unfolded leaves of infested plants are free of damage, and plants appear to be growing at a normal rate, further applications of insecticides will have little benefit. Treatments applied beyond the four-leaf stage of growth may actually be counterproductive, as these would likely reduce beneficial populations and result in early-season problems with other pests.

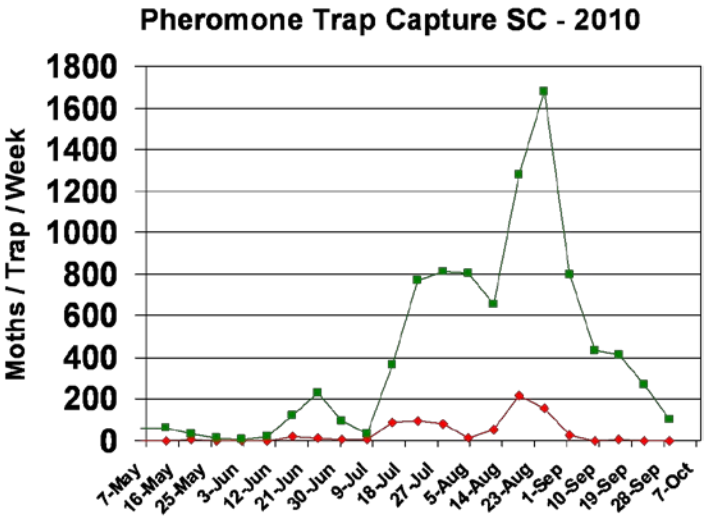
Cotton Insect Control Guide

Clemson University Publication IC97 (Cotton Insect Management) has been revised for 2011 and is available free from your local county office. It is also available online at:
http://www.clemson.edu/psapublishing/pages/ENTOM/IC97.PDF

Bollworm & Tobacco Budworm

Captures of bollworm (BW) and tobacco budworm (TBW) moths in pheromone traps at EREC last season and this season are shown below. We caught more bollworm and tobacco budworm moths last year than in any previous year that I have been here (this is my 6th consecutive season in SC). I had to change the scale on the charts last year from previous years. We are about where we were last year with numbers captured in traps. Tobacco budworm continues to be important for our soybean acres and for a limited number of non-Bt-cotton acres. I provide these data as a measure of moth activity in our local area where I use these data as an indication of moth presence and activity near my research plots. The numbers are not necessarily representative of the species throughout the state.





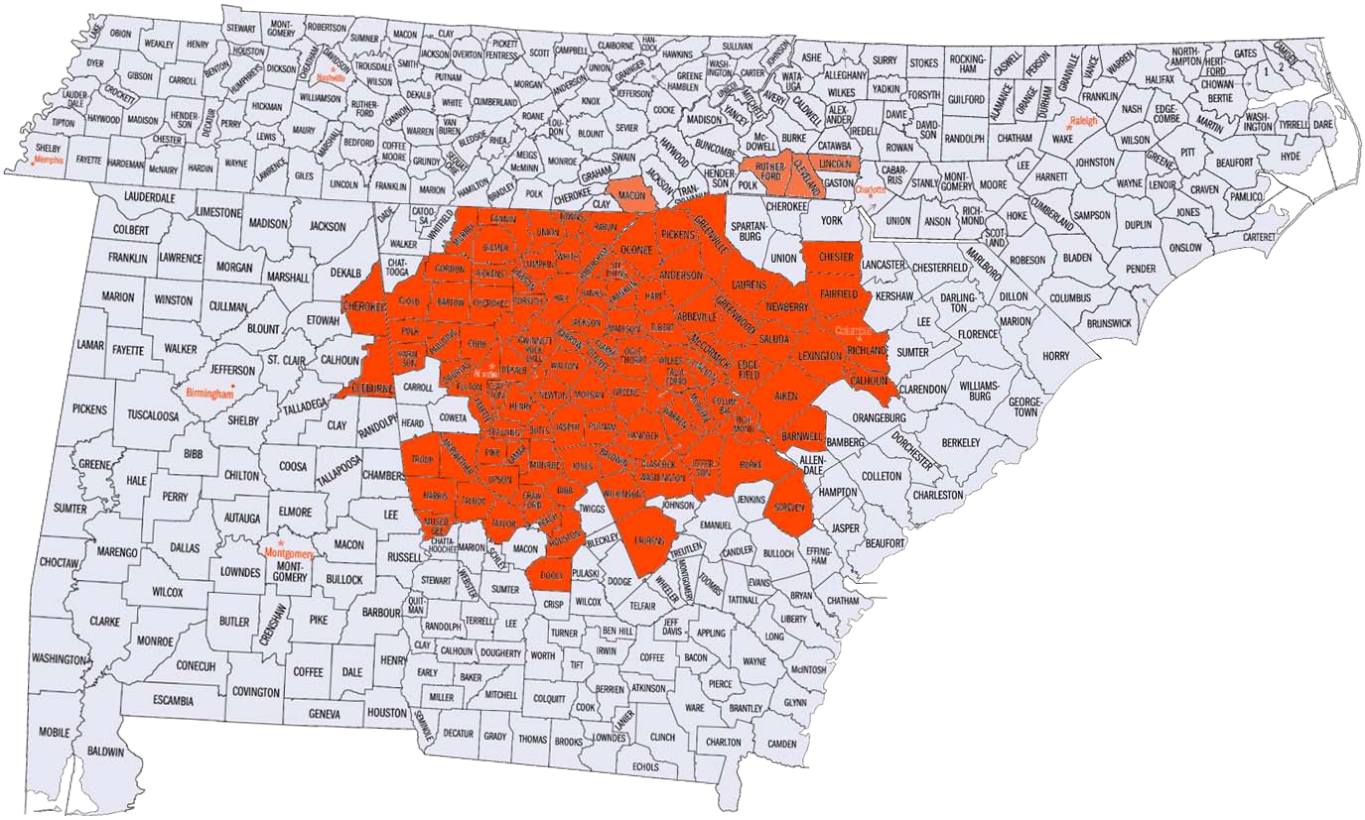
Soybean Situation

As of 9 May 2011, the USDA NASS South Carolina Statistical Office had our progress at about 16% of soybeans as planted, a little behind where we were last year at 19% but ahead of the 5-yr average of 13%. About 4% of soybeans have emerged, compared with 9% last year and 3% for the 5-yr average. These are observed/perceived state-wide averages.

Pest Alert: Kudzu Bug/Bean Plataspid!

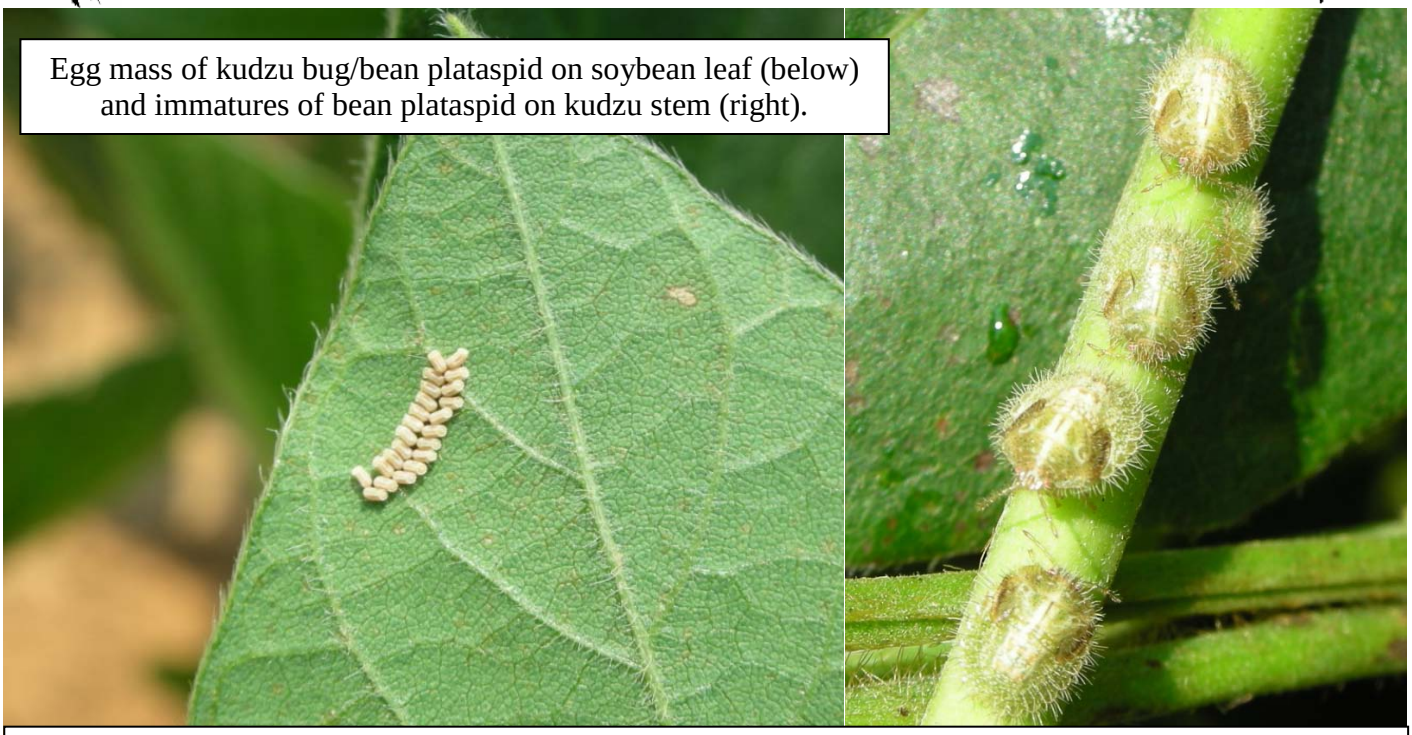
The bean plataspid/kudzu bug, *Megacopta cribraria*, continued to spread in GA, SC, NC, and AL last year. We have it confirmed in the following counties (18) in SC: Anderson, Oconee, Abbeville, Barnwell, Aiken, Edgefield, McCormick, Greenwood, Laurens, Saluda, Newberry, Lexington, Greenville, Pickens, Fairfield, Richland, Chester, and Calhoun Counties. ***It has been found on kudzu and/or soybeans in these counties, but***

it will feed on legumes in general, so it could be on other hosts, and it might be present but yet to be detected in other counties. It is very possible that this insect is on kudzu in Spartanburg, Cherokee, Union, and York Counties, finishing off the entire upstate for presence of these bugs. I would also bet that we have them in Orangeburg, Bamberg, and Allendale Counties. Any sampling assistance in these areas will be a big help. The best place to look for these pests is in/around kudzu. If you want to help document new county finds of this pest, digital pictures or specimens preserved in alcohol are important documentation to get from infested areas. ***Please email/send that information to me only if the infestation is in SC and is a new county observation***.



Distribution of kudzu bug/bean plataspid in GA, SC, NC, and AL as of 12 May 2011

Egg mass of kudzu bug/bean plataspid on soybean leaf (below) and immatures of bean plataspid on kudzu stem (right).



Kudzu bugs/bean plataspids and US dime on soybean leaf (below left) and close-up of kudzu bug/bean plataspid adult (below right) found on soybean in Barnwell County, SC (2010).

Here are the same pictures as in previous newsletters, but these photos should help those who have not identified the kudzu bug/bean plataspid. We will be conducting research to explore the potential economic impact of this invasive species – we learn more every day. Updates will be provided weekly in the newsletter.

Soybean Insect Control Guide

Clemson University Publication SL1 (Soybean Insect Management) has been revised for 2011 and is available free from your local county office. It is also available online at:
http://www.clemson.edu/psapublishing/pages/AGRO/SL1.PDF

Pest Alert: Brown Marmorated Stink Bug!

See the following links for this invasive stink bug that will likely start causing problems for producers of soybean, cotton, peaches, etc, and for home owners.

Identification guide for stink bugs – brown marmorated stink bug(BMSB) on page 6:
http://pubs.ext.vt.edu/444/444-356/444-356.pdf

Clemson Fact Sheet on brown marmorated stink bug:
http://entweb.clemson.edu/eiis/pdfs/ni3.pdf

Penn State information on BMSB (where this insect was likely introduced – Pennsylvania):
http://ento.psu.edu/extension/factsheets/brown-marmorated-stink-bug

Funny (but informative) video about brown marmorated stink bug (from Rutgers):
http://www.youtube.com/watch?v=jYHOmVvcVcQ

Pest Management Handbook - 2011

Insect control recommendations are also available online in the 2011 Pest Management Handbook at:
http://www.clemson.edu/extension/rowcrops/pest/index.html

Need More Information?

Log on to the following web pages to view important cotton management recommendations, data, and historical cotton/soybean insect newsletters:

For more cotton and soybean information:
http://www.clemson.edu/public/rec/edisto/research/

For past newsletters:
http://www.clemson.edu/extension/rowcrops/cotton/pest_management/newsletters/index.html

Sincerely,

Jeremy K. Greene, Ph.D.
Associate Professor – Entomologist

Visit our website at:
http://www.clemson.edu